paragraph a pair of sentences like the following: "On the basis of my observations I am of the opinion that bees possess either no cousciousness at all, or one of only the lowest degree of development." . . . "We see that bees show signs of an admirable memory in their orientation, and also in other activities; further, I believe I have shown that the bee possesses a perception for color and form, and develops a rich capacity for communication . . . that, further, it is able to gather experience, to learn, and to form associations of impressions, etc." It is perhaps fair to say that Dr. v. Buttell gives us warning elsewhere that he does not always mean as anthropomorphic as he says.

The printing of the work in this English edition leaves not a little to be desired. Lines five inches long in type as fine as that used in the body of the pages is none too easy to read, and when it becomes still finer type in the footnotes it offers positive difficulties. E. C. S.

Biology and Its Makers, by WILLIAM A. LOCY, Ph. D., Sc. D. Henry Holt & Co., New York, 1908. pp. 469.

In this work Professor Locy of Northwestern University has given to the educated public an untechnical but scholarly account of the rise and present status of biology and its problems. The book will be welcomed both for its contents and straightforward, thoughtful style by students, clergymen, teachers, medical men, and all interested in the achievements of modern science. At the same time the broad outlook over the whole biological field,—comparative anatomy, embryology, histology, etc.,—the comprehensiveness and continuity of the work, its clear statement of problems, its excellent table of contents, index, and bibliography up to date will commend it to the specialist. For those who know a little about biology and wish to know more Professor Locy's volume is positively fascinating. One finds the theory of organic evolution fully and adequately treated, to be sure, but in its right setting as part of the orderly development of a great science. The cell theory, the discovery of protoplasm, the rise of bacteriology, and of the science of fossil life, and recent controversies in reference to germinal continuity and the inheritance of acquired characteristics are all presented in their just relation. The generous amount of biographical material, the portraits and other illustrations, and Professor Locy's appreciation of and almost religious respect for the great leaders of scientific thought are sure to make his book of very great educational significance. This work emphasizes the zoölogical rather than the botanical side of biological science as indeed might be expected by all familiar with the research work of the author.

Northwestern University. W. LIBBY.

La Mano. Appunti antropometrici et antropologici, del Dott. E. AUDENINO. Rivista Sperimentale di Freniatria e Medicina legale delle Alienazione mentale, Settembre, 1907. Vol. 33, pp. 416-429.

The author of this article is an assistant of Professor Lombroso at the psychiatrical and neuropathological clinic at Turin, and summarizes a number of previous studies of the hand as well as giving the results of his own investigations. The palmar lines of various simians have been studied by Alix, Andreoli, Morselli, Carrara and others, and certain characteristic longitudinal, and in some species, transverse lines, have been made out. In man, these transverse lines tend normally to become more oblique, but both they and the longitudinal lines appear as atavistic phenomena. Dott. Audenio compared the frequency with which these lines appear in normal man, in cretins, insane patients and epileptics with the following results: In normal man about 21% of the hands examined (87 men and 13 women) showed more or less complete longitudinal lines, the frequency being greater